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LAKE GLADSTONE, AN IMPORTANT KIMBERLEY BIRD HABITAT: WITH NOTES ON BIRDS RECORDED DURING THE W.A. NATURALISTS' CLUB EXCURSION ON 12 JULY 2003

> By JOHN DELL W.A. Naturalists' Club, P.O. Box 8257, Perth Business Centre, W.A. 6849

#### INTRODUCTION

Lake Gladstone is an important bird freshwater habitat in the south central Kimberley. Its European discovery was by Frank Hann on 22 July 1898 who wrote in his diary "There is a fine little lake I have called Lake Gladstone. Camped. I do not know how it get filled as there is not any creek coming into it" (Donaldson and Elliott 1998, p. 83), Lake Gladstone is named after William Ewart Gladstone (29-12-1809 to 19-05-1898) who was a British Liberal politician and four times Prime Minister (1868–1874, 1880–1885, 1886, and 1892-1894). Frank Hann did not mention any birds on the lake but when referring to nearby spider's Lagoon he said "lots of geeses".

Lake Gladstone is located in a

reserve currently gazetted for "Public Purposes" and is part of the old Kimberley stock route (Figure 1) which is no longer used for droving cattle.

The first major ornithological survey of the Lake Gladstone area was undertaken during 20-24 July 1968 by members of the 5th Harold Hall Australian Expedition who made collections for the British Museum (Natural History). B.D. MacDonald Booth (in Hall 1974) wrote "This hill lake fringed with tall beds of rush was the home of the Grass and Water Whistling Ducks, Rafts of Green Pygmy Geese, the first we had seen in the Kimberleys, were astonishingly well concealed among the carpet of giant water lilies that hid much of the lake. Apart from the few Royal and Yellow-billed Spoonbills, Straw-necked lbis and egrets, there were not the number of aquatic species we had hoped to find. Swathes were cut in the rush for our mist nets though no amount of walking up would induce Reed-warblers to trap themselves." Altogether, Hall (1974) refers to 46 species of birds recorded at Lake Gladstone.

Lake Gladstone was visited for two days from 26–27 October 1977 by R.E. Johnstone of the Western Australian Museum who compiled a list of the 50 bird species that he recorded. This data remains unpublished (Johnstone pers. comm.).

The lake was visited by Buchanan in August 1994 who published a list of 32 species of birds, mainly waterbirds that he recorded (Buchanan 1994). Buchanan was apparently unaware of the previously published records by Hall (1974) and did not mention the visit by Johnstone. Thus the birdlife of Lake Gladstone relatively remained documented. Storr's regional review of Kimberley birds only specifically mentioned Lake Gladstone for eleven species (Storr 1980) and Blakers et al. (1984) and Johnstone and Storr (1998) rarely referred to species of birds as occurring there.

Further unpublished data was compiled by Pam Masters (pers. comm.) who visited Lake Gladstone on 13 October 1998 and recorded 29 species of birds.

Because of the paucity of readily available information on such a significant wetland as Lake Gladstone, it was visited by a group of members of the Western Australian Naturalists' Club for

about three hours during the morning of 12 July 2003. This was part of the itinerary during the Club's long-range excursion to the nearby Mornington Wildlife Sanctuary which is managed by the Australian Wildlife Conservancy.

When visited in August 1994 by Buchanan the waterbody was described as "about I metre deep at the maximum. An irregular shape, some 500 metres by 300 metres in size when visited, with a 50 metre arm to the south east, the lake is obviously very much larger in the wet and over two metres deep." Buchanan (1994) described the lake as having sizeable patches of open water, but the greater part comprised 'rush' most of which were fallen and broken.

However when visited by the Naturalists' Club in July 2003 after a relatively dry wet season, the waterbody was somewhat less extensive than described by Buchanan and probably much shallower with much of the waterbody less than half a metre in depth.

In July 2003 the waterbody was almost surrounded by a partly submerged perennial 'spike rush' sedge Eleocharis dulcis about a high. Beyond particularly in the centre of the lake basin, the Eleocharis dulcis was fallen and broken and dry underneath but towards the waterbody the fallen Eleocharis dulcis was marshy underneath. On the northern side of the lake were several groups of Freshwater Mangrove Barringtonia acutangula which were dry underneath and being used for shade by cattle.

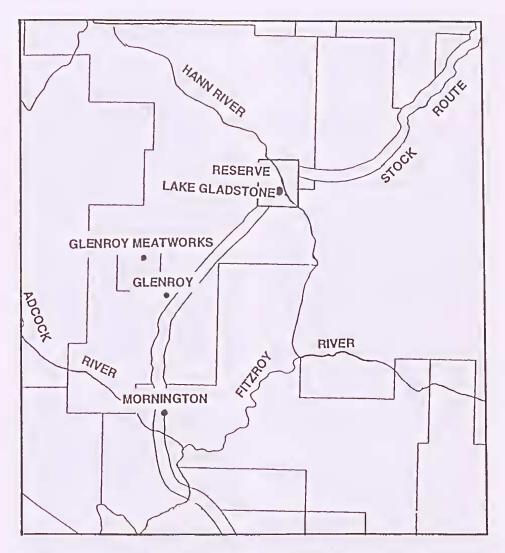


Figure 1. Map showing the location of Lake Gladstone within the public purposes reserve, the Kimberley stock route, the main rives and station boundaries.

During the wet season these Freshwater Mangroves would be standing in water. Around the eastern arms of the lake were tall Eucalyptus camaldulensis, River Gum.

Other plants recorded around the lake during the W.A. Naturalists'

Club visit on 12 July 2003 by Daphne Choules Edinger (pers. comm.) were Abutilon sp., Acacia sp. (sterile ?colei or tumida), Aristida contortus, Bauhinia cunninghamii, Carissa lanceolata, Cynodon dactylon, Eneapogon ?cylindricus, Hakea macrocarpa, Heliotripium sp.,

Hibiscus sp., Lysiana spathulata, Melaleuca minutifolia, Polycarpaea coryombosa, Terminalia canescens (joolal) and Triodia schinzii (curly spinifex).

Cattle were visiting the lake to drink and rest in the shade. At one stage they were wading out in the water of the lake. Accordingly much of the lake edge had very little vegetation having been severely grazed with extensive disturbance to the soil surface.

A total of 38 bird species was recorded at Lake Gladstone during the W.A. Naturalists' Club visit on 12 July 2003. These species are listed in the annotated list below. This list also includes those species previously recorded in July 1968 by members of the 5th Harold Hall Australian Expedition (Hall 1974), in October 1977 by R.E. Johnstone (pers. comm.), in August 1994 by Buchanan (1994) and in October 1998 by Masters (pers. comm.).

#### ANNOTATED LIST OF SPECIES

# Family ANATIDAE

Anseranas semipalmata Magpie Goose. A total of 28 birds scattered around edges of water and in Eleocharis dulcis in July 2003. Recorded in August 1994 by Buchanan (1994) and in October 1998 by Masters (pers. comm.).

Dendrocygna eytoni Plumed Whistling Duck. Approximately 30 birds on water in July 2003. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), about 100 in October 1977 by Johnstone

(pers. comm.), and in August 1994 by Buchanan (1994).

Dendrocygna arcuata Wandering Whistling Duck (Chestnut Whistling Duck). Seven on water in July 2003. Previously recorded in July 1968 by the 5th Harold Hall Australian Expedition (Hall 1974), and 25 in October 1977 by Johnstone (pers. comm.). Storr (1980) refers to this species as occurring at Lake Gladstone. Recorded in October 1998 by Masters (pers. comm.).

Nettapus pulchellus Green Pygmygoose. Approximately 30 birds on water in July 2003. Previously recorded as parties of 20–30 in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), and 24 in October 1977 by Johnstone (pers. comm.). Storr (1990) refers to this species as occurring at Lake Gladstone.

Anas gracilis Grey Teal. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), in August 1994 by Buchanan (1994) and in October 1998 by Masters (pers. comm.).

Anas superciliosa Pacific Black Duck. A total of 53 birds on water in July 2003. Previously recorded as about 50 in October 1977 by Johnstone (pers. comm.).

Malacorhynchus membranaceus Pink-eared Duck. Recorded in August 1994 by Buchanan (1994).

Aythya australis Hardhead. A total of 38 birds on water in July 2003. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), in August

1994 by Buchanan (1994) and in October 1998 by Masters (pers. comm.).

# Family PODICIPEDIDAE

Tachybaptus novaehollandiae Australasian Grebe. Seven on water in July 2003. Previously recorded in July 1968 by the 5th Harold Hall Australian Expedition (Hall 1974), in October 1977 (10 birds) by Johnstone (pers. comm.), in August 1994 by Buchanan (1994) and in October 1998 by Masters (pers. comm.).

# Family ANHINGIDAE

Anhinga melanogaster Darter. One on edge of Eleocharis dulcis in July 2003. Previously recorded as 15–20 in October 1977 by Johnstone (pers. comm.) and in October 1998 by Masters (pers. comm.).

# Family PHALACROCORACIDAE

Phalacrocorax sulcirostris Little Black Cormorant. One on tree near edge of water in July 2003. Previously recorded as three 25 in October 1977 by Johnstone (pers. comm.) and in August 1994 by Buchanan (1994).

Phalacrocorax melanoleucos Little Pied Cormorant. Three on water in July 2003. Previously recorded as three in October 1977 by Johnstone (pers. comm.), in August 1994 by Buchanan (1994) and in October 1998 by Masters (pers. comm.).

# Family PELECANIDAE

Pelecanus conspicillatus Australian Pelican. One on water in July 2003. Previously recorded as 15 in October 1977 by Johnstone (pers. comm.), in August 1994 by Buchanan (1994) and in October 1998 by Masters (pers. comm.).

# Family ARDEIDAE

Ardea alba Great Egret. Three in shallow water in July 2003. Previously recorded as 16 in October 1977 by Johnstone (pers. comm.), in August 1994 by Buchanan (1994), and in October 1998 by Masters (pers. comm.).

Ardea garzetta Little Egret. Previously recorded as four in October 1977 by Johnstone (pers. comm.) and in October 1998 by Masters (pers. comm.).

Ardea ibis Cattle Egret. A total of 21 birds scattered around edges of water and in trampled Eleocharis dulcis in July 2003. Recorded in August 1994 by Buchanan (1994) and in October 1998 by Masters (pers. comm.).

Ardea intermedia Intermediate Egret. Approximately 30 birds scattered around edges of water and in trampled Eleocharis dulcis in July 2003. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), and in August 1994 by Buchanan (1994).

Ardea novaehollandiae White-faced Heron. Previously recorded as four in October 1977 by Johnstone (pers. comm.).

Ardea pacifica White-necked Heron. A total of 14 birds scattered around edges of water and in trampled *Eleocharis dulcis* in July 2003. Previously recorded as three in October 1977 by Johnstone (pers. comm.) in August 1994 by Buchanan (1994).

Nycticorax caledonicus Rufous Night Heron. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974) and in River Gums and Freshwater Mangroves in October 1977 by Johnstone (pers. comm.).

# Family THRESKIORNITHIDAE

Plegadis falcinellis Glossy Ibis. Previously recorded as four in October 1977 by Johnstone (pers. comm.) and in August 1994 by Buchanan (1994).

Threskiornis molucca Australian White Ibis. Two in trampled Eleocharis dulcis. in July 2003. Recorded in August 1994 by Buchanan (1994) and in October 1998 by Masters (pers. comm.).

Threskiornis spinicollis Strawnecked Ibis. A total of 29 birds scattered around edges of water and in trampled Eleocharis dulcis in July 2003. Previously recorded in July 1968 by the 5th Harold Hall Australian Expedition (Hall 1974), two in October 1977 by Johnstone (pers comm.), in August 1994 by Buchanan (1994), and in October 1998 by Masters (pers. comm.).

Platalea regia Royal Spoonbill. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), ten in October 1977 by Johnstone (pers. comm.), in August 1994 by Buchanan (1994) and in October 1998 by Masters (pers. comm.).

Platalea flavipes Yellow-billed Spoonbill. Previously recorded in

July 1968 by the 5th Harold Hall Australian Expedition (Hall 1974), in August 1994 by Buchanan (1994) and in October 1998 by Masters (pers. comm.).

# Family CICONIIDAE

Ephippiorhynchus asiaticus Blackwinged Stork. Recorded in October 1998 by Masters (pers. comni.).

#### Family ACCIPITRIDAE

Aquila morphnoides Little Eagle. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

Milvus migrans Black Kite. One flying above lake in July 2003. Previously recorded in River Gums in October 1977 by Johnstone (pers. comm.).

Haliastur sphenurus Whistling Kite. Two pairs at two nests in tall River Gums near water edge on northeastern side of lake in July 2003. Recorded in August 1994 by Buchanan (1994) and in October 1998 by Masters (pers. com.). Buchanan noted a nest on the eastern side of the lake.

Haliaeetus leucogaster Whitebellied Sea Eagle. Recorded in August 1994 by Buchanan (1994).

Circus approximans Swamp Harrier. Recorded in August 1994 by Buchanan (1994).

# Family FALCONIDAE

Falco berigora Brown Falcon. One perched on tree several hundred metres from lake edge in July 2003.

#### Family GRUIDAE

Grus rubicunda Brolga. Two at edge of water in July 2003. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), four in October 1977 by Johnstone (pers. comm.), and in October 1998 by Masters (pers. comm.).

#### Family RALLIDAE

Fulica atra Eurasian Coot. A total of 38 birds on water in July 2003. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), in October 1977 by Johnstone (pers. comm.), and in August 1994 by Buchanan (1994).

Porphyrio porphyrio Purple Swamphen. Six in *Eleocharis dulcis* in July 2003. Recorded in August 1994 by Buchanan (1994).

# Family OTIDIDAE

Otis australis Australian Bustard. Previously recorded as four on dry mud flats in October 1977 by Johnstone (pers. comm.).

# Family SCOLOPACIDAE

Tringa glareola Wood Sandpiper. Previously recorded as one on lake edge in October 1977 by Johnstone (pers. comm.) and in August 1994 by Buchanan (1994).

Tringa hypoleucos Common Sandpiper. Previously recorded as six in October 1977 by Johnstone (pers. comm.) and in August 1994 by Buchanan (1994).

Calidris acuminata Sharp-tailed Sandpiper. Previously recorded as about 30 in October 1977 by Johnstone (pers. comm.).

# Family JACANIDAE

Metopidius gallinaceus Combcrested Jacana. Two in shallow water on edge of *Eleocharis dulcis* in July 2003. Recorded in October 1998 by Masters (pers. comm.).

# Family RECURVIROSTRIDAE

Himantopus himantopus Black-winged Stilt. Previously recorded as six in October 1977 by Johnstone (pers. comm.) and in August 1994 by Buchanan (1994).

# Family CHARADRIIDAE

Vanellus miles Masked Lapwing. Two among trampled Eleocharis dulcis in July 2003. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), about 20 in October 1977 by Johnstone (pers. comin.), in August 1994 by Buchanan (1994), and in October 1998 by Masters (pers. comm.).

Charadrius melanops Black-fronted Dotterel. Previously recorded as "very common probably about 100 at the lake" in October 1977 by Johnstone (pers. comm.), in August 1994 by Buchanan (1994), and in October 1998 by Masters (pers. comm.).

# Family GLAREOLIDAE

Stiltia isabella Australian Pratincole. Two among trampled Eleocharis dulcis in July 2003. Previously recorded as two on dry mud flat in October 1977 by Johnstone (pers. comm.) and in August 1994 by Buchanan (1994).

#### Family LARIDAE

Sterna hybrida Whiskered Tern. Previously recorded as ten in October 1977 by Johnstone (pers. comm.).

# Family COLUMBIDAE

Geophaps plumifera Spinifex Pigeon. Recorded in August 1994 by Buchanan (1994).

Geopelia humeralis Bar-shouldered Dove. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

Geopelia striata Peaceful Dove. One at edge of lake in July 2003. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

# Family PSITTACIDAE

Calyptorhynchus banksii Red-tailed Black Cockatoo. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), and in October 1998 by Masters (pers. comm.).

Cacatua roseicapilla Galah. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

Cacatua sanguinea Little Corella. Approximately 30 in tall River Gums near water in July 2003. Previously recorded as common in July 1968 by the 5th Harold Hall Australian Expedition (Hall 1974), in October 1998 by Masters (pers. comm.).

Nymphicus hollandicus Cockatiel. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

Aprosmictus erythropterus Redwinged Parrot. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

#### Family CUCULIDAE

Cacomantis variolosus Brush Cuckoo. Previously recorded in July 1968 by the 5th Harold Hall Australian Expedition (Hall 1974).

Chrysococcyx basalis Horsfield's Bronze Cuckoo. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

# Family STRIGIDAE

Ninox connivens Barking Owl. Previously recorded as three calling at night in October 1977 by Johnstone (pers. comm.).

# Family ALCEDINIDAE

Dacelo leachii Blue-winged Kookaburra. Previously recorded as calling at night in October 1977 by Johnstone (pers. comm.).

Todiramphus sanctus Sacred Kingfisher. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974) and in River Gums and Freshwater Mangroves in October 1977 by Johnstone (pers. comm.).

# Family MEROPIDAE

Merops ornatus Rainbow Bee-eater. Four sallying out to catch insects over water in July 2003. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), in October 1998 by Masters (pers. comm.).

# Family ACANTHIZIDAE

Gerygone olivacea White-throated Gerygone. Previously recorded in October 1977 by Johnstone (pers. comm.).

Smicrornis brevirostris Weebill. Previously recorded in October 1977 by Johnstone (pers. comm.).

# Family MELIPHAGIDAE

Lichmera indistincta Brown Honeyeater. One in River Gums near water in July 2003.

Lichenostomus flavescens Yellowtinted Honeyeater. Two in tall River Gums near water in July 2003. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), in October 1977 by Johnstone (pers. comm.), and in October 1998 by Masters (pers. comm.).

Lichenostomus plumulus Greyfronted Honeyeater. Previously recorded in July 1968 by the 5th Harold Hall Australian Expedition (Hall 1974) and in River Gums and Freshwater Mangroves in October 1977 by Johnstone (pers. comm.).

Lichenostomus unicolor Whitegaped Honeyeater. Previously recorded as four in River Gums and Freshwater Mangroves in October 1977 by Johnstone (pers. comm.).

Ramsayornis fasciatus Bar-breasted Honeyeater. Previously recorded in July 1968 by the 5th Harold Hall Australian Expedition (Hall 1974). Storr (1980) listed this species presence at Lake Gladstone, presumably referring to the record by Hall (1974).

Conopophila rufogularis Rufousthroated Honeyeater. Previously recorded as feeding over water from perch on top of cladium in October 1977 by Johnstone (pers. comm.).

Melithreptus albogularis Whitethroated Honeyeater. Previously recorded in October 1977 by Johnstone (pers. comm.).

Melithreptus gularis Black-chinned Honeyeater. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974) and in River Gums and Freshwater Mangroves in October 1977 by Johnstone (pers. comm.).

Philemon citreogularis Little Friarbird. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

# Family PACHYCEPHALIDAE

Pachycephala rufiventris Rufous Whistler. One in Freshwater Mangroves on north side of lake in July 2003. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974), in October 1998 by Masters (pers. comm.).

# Family DICRURIDAE

Myiagra inquieta Restless Flycatcher. One in River Gums on edge of water in July 2003. Previously recorded in July 1968 by the 5th Harold Hall Australian Expedition (Hall 1974).

Rhipidura leucophrys Willie Wagtail. Three feeding around edge of water in July 2003. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian

Expedition (Hall 1974) and in October 1977 by Johnstone (pers. comm.).

Rhipidura rufiventris Northern Fantail. One in Freshwater Mangroves on north side of lake in July 2003.

Grallina cyanoleuca Magpie-lark. Seven scattered around edges of water in July 2003. Previously recorded in July 1968 by the 5th Harold Hall Australian Expedition (Hall 1974) and in River Gums and Freshwater Mangroves in October 1977 by Johnstone (pers. comm.).

# Family CAMPEPHAGIDAE

Lalage tricolor White-winged Triller. One in trees near edge of lake in July 2003. Previously recorded in July 1968 by the 5th Harold Hall Australian Expedition (Hall 1974).

Coracina papuensis White-breasted Cuckoo-shrike. One in tall River Gums near water in July 2003. Previously recorded in October 1977 by Johnstone (pers. comm.).

Coracina novaehollandiae Black-faced cuckoo-shrike. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974) and in October 1977 by Johnstone (pers. comm.).

# Family ORIOLIDAE

Oriolus sagittatus Olive-backed Oriole. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

# Family ARTAMIDAE

Artamus cinereus Black-faced

Woodswallow. Previously recorded in October 1977 by Johnstone (pers. comm.).

Artamus leucorynchus Whitebreasted Woodswallow. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

Artamus minor Little Woodswallow. Several flying above lake in July 2003. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974) and in October 1977 by Johnstone (pers. comm.).

#### Family CRACTICIDAE

Cracticus nigrogularis Pied Butcherbird. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

#### Family PTILONRHYNCHIDAE

Ptilonorhynchus nuchalis Great Bowerbird. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974) and in October 1977 by Johnstone (pers. comm.).

# Family HIRUNDINIDAE

Hirundo ariel Fairy Martin. Two feeding above water in July 2003.

Hirundo nigricans Tree Martin. Previously recorded as ten hawking over water in October 1977 by Johnstone (pers. comm.) and in October 1998 by Masters (pers. comm.).

# Family CORVIDAE

Corvus orru Torresian Crow. Recorded in October 1998 by

# Family SYLVIIDAE

Acrocephalus australis Australian Reed Warbler. Previously recorded in July 1968 by the 5th Harold Hall Australian Expedition (Hall 1974) and in August 1994 by Buchanan (1994).

# Family ALAUDIDAE

Mirafra javanica Singing Bushlark. Previously recorded in July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

# Family PASSERIDAE

Taeniopygia guttata Zebra Finch. Previously recorded as 30 in October 1977 by Johnstone (pers. comm.)

Poephila acuticauda Long-tailed Finch. Approximately 28 came to drink at edge of water in July 2003. Previously recorded as ten in October 1977 by Johnstone (pers. comm.).

Poephila bichenovii Double-bar Finch. Recorded in October 1998 by Masters (pers. comm.).

Erythrura gouldiae Gouldian Finch. Previously recorded in August 1994 by Buchanan (1994) who recorded five juveniles.

Heteromunia pectoralis Pictorella Mannikin. Previously recordedin July 1968 by the 5<sup>th</sup> Harold Hall Australian Expedition (Hall 1974).

# Family MOTACILLIDAE

Anthus australis Australian Pipit. Previously recorded in July 1968 by the 5th Harold Hall Australian

#### DISCUSSION

Combining the list of 46 species listed by Hall (1974), the 50 species recorded in October 1977 by Johnstone (pers. comm.), the 32 bird species recorded by Buchanan (1994), the eleven species referred to by Storr (1980) and Johnstone and Storr (1998), the 29 species recorded by Masters in October 1998 (pers. com.), and the 38 species recorded on the W.A. Naturalists' Club excursion in July 2003 a total of 97 species have now been recorded at Lake Gladstone. Lake Gladstone is therefore important habitat for waterbirds and landbirds that utilize areas adjacent to water in that part of the south central Kimberley where other freshwater lakes do not occur.

As Lake Gladstone is being significantly degraded by cattle which use it for watering and shelter, it is recommended that it be managed for conservation. To achieve this aim the Western Australian Naturalists' Club recommends that the lake should be fenced with a cattle and donkey proof fence to exclude feral stock.

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